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ABSTRACT

This study sought to compare educationally-oriented preschools and care-oriented preschools in Bahrain. Children's progress was compared in an effort to measure the relative quality of the preschools. Twelve preschools were assessed through observations of child and staff behaviors utilizing the Early Childhood Environmental Rating Scale (ECERS). The ECERS preschool assessment categories include: (1) personal care routines; (2) furnishings and display; (3) language-reasoning experience; (4) fine and gross motor activities; (5) creative activities; (6) social development; and (7) adult needs. The results showed higher scores in all seven categories for children in educationally-oriented preschools than for children in care-oriented preschools. Compared to children in care-oriented preschools, for children who attended educationally-oriented preschools, there were a greater quantity and variety of materials in the preschool, more adult involvement and dialogue, more space to explore and experiment, more free play time, more creative activities, and better working conditions for teachers. The results showed less favorable conditions for early learning in the care-oriented preschools than in the educationally-oriented preschools. The research supports the evidence associating quality indices in child care environments with benefits for early learning. Contains 56 references. (Author/SD)

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Does quality make a difference in the preschool experience in Bahrain?

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Abstract

Two types of preschool environments, previously defined as either *care-oriented* (institutional practices) or *educationally-oriented* (child-learner focused; Hadeed, 1993) were compared in Bahrain. Two instruments were used to assess twelve preschool settings (six care, six educational): The Early Childhood Environment Rating Scale (Harms & Clifford, 1980) and the Target Child Method (Sylva, Roy & Painter, 1980) which sampled observations of child/staff behaviours. The focus of this paper presents the findings from the ECERS assessment which characterised seven main categories (37 items) within preschool settings i.e., personal care routines, furnishings, language, motor activities, creative activities, social development and adult needs. The scale was tested for reliability (r_S = .80, p<.01) and pilot tested for adaptability (U [1, N = 12] = 36, p<.01; Hadeed, 1993). The results showed higher scores for the educational group in all seven categories when compared with care-oriented group. Children who attended educationally oriented preschools experienced better facilities in terms of quantity and variety of materials, more adult involvement and dialogue, provisions for space to explore and experiment, more free play time, more creative activities and better working conditions for teachers. Global index scores were 178 and 106.7 for the educational and care groups, respectively which compares slightly higher with other studies (Benham, Miller & Kontos, 1988; Farquhar, 1989; McCartney, Scarr, Phillips & Grajek, 1985 [profit schools]) yet lower with others (Harms & Clifford, 1983; McCartney et al, 1985 [government school]). These findings correlated significantly with management practices (r = 0.76, p<.01) and teacher attitudes (r = 0.56) indicating that as environments leaned more towards institutional-type settings (care oriented) the environment index score (ECERS) decreased, showing less favourable conditions for early learning (Hadeed, 1993). The results helped to explain the significantly higher outcome measures ([cognitive, social and emotional] in press, Hadeed & Sylva, 1995a) and the higher scores on 'process' measures ([child and staff behaviours] in press, Hadeed & Sylva, 1995b) reported for children in the educational group. The research also supports the evidence associating quality indices in child care environments with benefits for early learning (Ball, 1994; Scarr, Eisenberg, Deater-Deckart, 1994; Weikart, 1994)

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Introduction

In Bahrain, where a history of research literature on early childhood learning environments is nonexistent, this study investigates a national sample (Arab) of twelve preschools. Two different preschool environments, initially classified at intake (Hadeed, 1994), were compared: care oriented and educationally oriented. The study addresses a specific question: Are educationally oriented preschools providing 'a more favourable' environment when compared with care oriented environments? ECERS (and time-sampled observations of child/staff behaviours, Hadeed & Sylva, 1995) was used for comparing conditions and surroundings in the different types of preschool settings. It provided a descriptive index measure of preschool conditions/surroundings and supported the evidence to account for the differential effects of children progress in the two types of preschool settings (Hadeed, 1994), rather than serve as a comprehensive measurement of quality.

Quality in preschool provision

Most scholars, researchers and educators would agree that as long as the quality of preschool provision is high, early education and day care can lead to beneficial gains for children (Andersson, 1989, 1992; Bruner, 1980; Clarke-Stewart, 1988; Howes, Phillips & Whitebook, 1992; Jowett & Sylva, 1986; McCartney et al., 1985; Reifel, 1993; Schweinhart, Barnes & Weikart, 1993; Sylva, 1992, 1994; Vandell & Powers, 1983; Vandell, Henderson & Wilson, 1988). Where there seems to be less agreement is on how to define 'quality' and assess it.

Defining quality

By definition, quality has a positive value associated with it. The Oxford Dictionary of Current English (1994) describes quality as: "a degree of excellence; an attribute or faculty; relative nature or character." Johansson (1993) suggests the lexical description of quality implies two philosophical views on the concept of quality: the Socratic view, where quality is based on the 'process' method of articulation fostered by well-thought out questions and answers i.e., 'real dialogue'; and the Marxist view which associates quality with the identity of an object that can be measured. Where the former concentrates on 'process', the latter clearly calls for identifying more tangible characteristics of quality. Scarr and her colleagues

have neatly categorised these conceptual entities into two measurable units for assessing quality: (1) the *process-oriented units*, such as the child-adult interactions and developmentally appropriate activities and, (2) the *regulatable units* such as, adult/child ratios, class size, teacher training, teacher education and teacher wages, and staff turnover (1994).

Features (dimensions) of quality

Whereas most sources agree on a commonly shared set of criteria for ensuring child care quality (Andersson, 1992; Curtis, 1992; DES, Starting With Quality Report, 1990; Johansson, 1993; Kontos & Dunn, 1993; Moss, 1990; Moss & Melhuish, 1991; Pugh, 1992; Schweinhart et al, 1993; Zigler & Styfco, 1993) some key features tend to variate depending upon cultural, economic and political factors e.g., parent involvement, training, etc. For example, in several home-based or home/centre programmes which serve remote regions in underdeveloped countries, parental involvement is essential to the programme success (Bernard van Leer, 1995). In other more developed countries, such as the US or UK, parental involvement means something different and in many cases is either not mandated nor a viable part of the learning environment (Wolfendale, 1991). Universally, another feature which varies considerably is the type and degree of teacher training required for early learning environments to thrive. While many studies show the number of teacher-training years and experience (teacher's educational background) to be significantly related to 'quality' programmes (Cassidy, Buell, Pugh-Hoese & Russell, 1995; Ruopp, Travers, Glantz & Coelen, 1979; Whitebook, Howes & Phillips, 1989; Snider & Fu, 1990) there is growing evidence to suggest that 'specialised' training may be as effective (Bernard Leer Foundation, 1995; Hadeed, 1994; Ramsden, 1995; Scarr et al., 1994). Overall, the research on teacher qualification/training is difficult to unscramble because the results often report unclear findings owed to deficient design models for testing 'effects', lack of actual course content described, and/or actual measurable gains reflected in classroom practice (Cassidy et al., 1995).

While quality characteristics may mean different things in different places, generally, there are common determinants of quality which focus on the following basic features:

(a) a [developmentally-appropriate] curriculum based on the principle of active learning and 'purposeful play'

(b) the selection of [sensitive and responsive caregivers who enjoy being with children]

(c) [adequate and on-going] training, stability/retention, pay/benefits, and child/staff ratio for caregivers

(d) parental involvement i.e. effective links between home and preschool

(e) decent buildings, . . . a variety of equipment [and adequate space]

(f) diversity of the peer group

(g) limited group size

(h) health and safety requirements

(Ball, 1994, p. 72; Scarr et al, 1994, p. 133).

Other features of quality in preschool provision include the development of cooperative and innovative networks with local agencies and councils that support early years learning, in-service teacher-training; up-to-date monitoring and assessment of programme needs; parent education programme, space/facilities to experiment and test-out new ideas, assessment facilities, and the development of research with a 'practical' focus for implimentation.

In the past, research, experience and knowledge has provided the evidence that each of the basic features mentioned above is associated with programmes which provide quality care. Where some have stressed the need for improved teacher training (Howes et al., 1992; Pascal & Bertram, 1993; Watt, 1990), better staffing ratios and teacher pay (Beardsley, 1990; Scarr et al., 1994) others have shown that improved facilities and parent education programmes help to establish and sustain quality care. New evidence indicates that the importance of quality care does not depend on a single feature of preschool provision but rather is dependent upon a composite of several important features which are sensibly and sensitively mediated in the culture served (Lamb, Sternberg, Hwang & Broberg,

1992; Mother Child Education Foundation, Turkey, 1994; Papatheodorou & Ramasut, 1993; Sylva, 1990; Weikart, 1994).

While most agree on the important features that describe quality in preschool practice, controversy exists on ways in which to assess it (Beardsley, 1990; Curtis, 1992; Fiene, 1992; Harms & Clifford, 1980; Holtermann, 1992; Howes et al., 1992; Katz, 1993; Pascal & Bertram, 1993; Scarr et al., 1994).

Assessing quality

Harms & Clifford (1980), Fiene (1992) and others have developed and validated instruments to assess care and education preschool environments. These rating scales act as a yardstick to gauge overall preschool surroundings. They are generally descriptive and informative assessments which often provide important practical value to caregivers and teachers. In other words they have proven to be a useful in-service training tool (Kontos & Stevens, 1985). However, their role as an index for quality have recently been queried and scrutinised, raising serious questions and concerns (Benham, Miller & Kontos, 1988; Farquhar, 1989; Kontos & Fiene, 1985; Scarr et al., 1994). Some argue that rating scales do not take into consideration inter-personal relationships between child, parent and staff, such as respect, support, experience and personal values (Katz, 1993; Rutter, 1985). Others suggest that they may be 'culture specific' and unable to detect and assess indices of quality in provision in other cultures (Farquhar, 1989; Goelman & Pence, 1987). For example, one needs only to ponder the different and unique greeting, eating, sleeping and grooming customs (measured by the Personal Care subscale, ECERS) in China, Saudi Arabia or places in Africa, to illustrate how children's daily schedules, routines and practices take on different meanings in different cultures. Sometimes religious aspects play a dominant role (Hadeed, 1994) while in other situations, political norms dictate a significant role in preschool practices (Curtis, 1992; Lamb et al., 1992).

Therefore, while there are clear indicators of quality that are assessable in most preschool practice it is doubtful there is a single instrument that is capable of measuring all its characteristics within every cultural context. One multi-continent, longitudinal study currently in progress suggests instruments used across varying cultural contexts should not be unilaterally developed and then "imposed upon

participating countries." Rather, data-gathering instruments need to be adapted to each country's cultural life, childrearing practices and 'national temperament' (Weikart speaking on the IEA Pre-primary Project in Yesterday, Today & Tomorrow, *High Scope Resource Magazine for Educators*. Summer 1994, p. 11). Scarr et al (1994) claims that America's most popular instruments for rating child care provision (ITER & ECERS) are 'highly redundant and inefficient research measures' (p. 146). The results from their analysis of 120 child care centres in three US states shows that item selection (based on face validity alone) is so highly correlated that any set of 12 randomly selected items will provide a reliable and valid measure of quality. In terms of research and evaluation, this means that shorter, simpler scales for assessing the quality in child care settings are in order.

Other approaches used to assess quality of early childhood programmes include: a multi-perspective approach (Katz, 1993), programme rating scales designed for assessing specific curriculum such as PIP, (High/Scope, 1989) and instruments which include process and regulatory features (PACE, Dunst, McWilliam & Holbert, 1986). The research literature indicates that several of the commonly shared features inherent in most of these instruments serve as good indicators when predicting the effects of preschool provision (Beardsley, 1990; Clarke-Stewart, 1988, 1989; Fiene, 1992; Harms & Clifford, 1980; Howes et al., 1992; Jowett & Sylva, 1986; Schweinhart et al., 1993). Clearly, the issue of quality plays an important central role when considering environments which promote optimal early learning conditions and effectiveness of preschool provision on children's development.

Design and Methods

For this study two types of preschool were investigated in Bahrain: care and educationally oriented. Information was collected by observational techniques based on a rating scale (from inadequacy at 1, to excellence, at 7) which defines environment as the use of space, materials and experience to enhance children's development, daily schedule and supervision provided (the Early Childhood Environmental Rating Scale, Harms & Clifford, 1980). The methods for statistical analysis required non-parametrical procedures (Mann-Whitney U test) due to the nature of data, asymmetrical distributions, and small sample size.

It was not necessary to translate the ECERS into Arabic as the examiners were bilingual and the nature of the assessment does not directly assess individual or group performance which requires language comprehension.

To ensure the instrument's reliability, two observers conducted an inter-rater test on a random selection of preschools (N=4), indicating the correlation coefficient, $r_s = .80$. An additional eight preschools were chosen for pilot testing with results showing discrimination between preschool groups, care and educational (U (1, 8) = 16, $p<.01$). This was followed by a short dummy observation session to acquaint observers with children and staff.

Sample

Twelve preschools (six care and six educationally oriented) for the main sample were randomly selected from four geographic areas previously matched on several social, religious and economic background variables e.g. all preschools were Arab national preschools serving children ranging from 3 - 6 years old, total number of children in each center ranged from 80-110; teacher salary range (75-85 per month), monthly tuition fees (25-30BD), operating hours, language of instruction (Arabic) and nationality (100% Bahraini).

Preschools identified as either care or educationally oriented were previously classified using an instrument which queried management practices and teacher's attitudes (Teacher Questionnaire/Interview, Hadeed, 1993). Centres described as care oriented centres tend to practice more institutional-type management practices with adult-dominated teaching approaches, while centres described as educationally oriented practice more active, child-oriented approaches. The former reflects implied behaviours such as obeying rules, respecting authority figures, regimentation of activities, and lack of individual choice. The latter, allows children more freedom of choice, more personalised interaction (emphasis on individuality), independence, and a more balanced scheduling of free play time with adult-directed activities.

Results

Total index score results

According to the ECERS the characteristics which define the preschool environment are described in seven subscale categories: Personal Care Routines of Children, Furnishings and Display For Children, Language-Reasoning Experience, Fine and Gross Motor Activities, Creative Activities, Social Development and Adult Needs. Collectively, the total number of items on the scale supply a *global index score* for rating the preschool environment. The maximum possible score is 259 and the minimum is 37. For this study, the mean index score for each preschool group was 106.7 for care centres and 178.3 for educational centres (Table 1). When compared with some studies, mainly carried out in the US (Benham, Miller & Kontos, 1988; Farguhar, 1989; McCartney et al., 1985) the average index score for the educational group compared slightly higher e.g. 137.1 for Farquhar study, 121 in McCartney et al study and 160 for Benham et al study. By contrast, other studies have indicated that the average reported for the educational centres was comparatively lower than their findings (Harms & Clifford, 1983, 186.04 average; McCartney et al., 1985, 191 average). For the care oriented group, the average index score falls considerably below the mean averages found in the above mentioned studies. These comparisons between international studies help to illustrate the wide variation in total index scores which poses questions in terms of assessing quality with a consistent degree of cultural adaptiveness (Hadeed, 1994; Scarr et al., 1994).

When the total scores from the two types of preschool orientations (six care oriented and six educationally oriented) were compared for differences, results indicated a significant difference in groups (Mann-Whitney U (1, 12) = 36, $p<.01$; two tailed) favouring the educational group (Table 1).

Table 1

Total and mean scores for ECERS by preschool orientation (care and educational)

	Care	Educational
Totals	**640**	**1070**
M	**106.7**	**178.3**
SD	22.8	18.7

Note. Results from the Mann-Whitney U test; $p < .01$ level; two-tailed. U=0, U'=36, N=12

Subscale results

A further analysis, comparing mean scores on the seven subscale categories for both groups (care and educational) shows significantly higher scores for the educational group across all subscale measures (Mann-Whitney U (1, 12) = 36, $p<.001$; Table 2). The educationally oriented programs offered a greater degree of attention to personal care, language/reasoning experiences and the opportunity for creative and social development (Figure 1).

Table 2

Subscale scores for ECERS by preschool orientation (care and educational)

	Care		Educational		Possible totals	% diff in means
Subscales	M	SD	M	SD		
Creative activities	15.7	6.1	32.3***	5.1	49	33.9%
Social development	12	3.2	23.7***	4.1	42	27.9%
Furniture display	16.7	4.2	25.8***	2.9	35	26%
Adult needs	10	2.91	17.2**	3.25	28	25.7%
Personal care routines	17.7	3.8	25.3***	3.0	35	21.7%
Language/ reasoning	13.7	2.9	21***	2.1	28	20.9%
Fine/gross motor activities	25.8	5.4	32.8*	4.0	42	16.7%

**p<.01; ***p<.001: Mann-Whitney U analysis for subscale scores between groups indicated significantly higher values for the educational group on all subscales.

(insert Figure 1)

The percent differences between subscale categories provide a proportional measure of mean differences between groups. Clearly, it shows the highest percentage difference was recorded for the category of Creative Activities (33.9%) with the least percentage mean difference for the Fine/Gross Motor Development category (16.7%).

Creative activities

A closer look at the descriptive language used for identifying characteristics within a subscale category provide some explanation for the differences between preschools. For example, in the Creative Activities subscale, higher scores for items (5 and above) used terms, such as "individual expression", "free choice", "variety", "flexibility", and "balance of structure" (Harms & Clifford, 1980, pp. 27-29). These terms reflect, not only the availability and use of materials but importantly the way in which the materials are used by the children. Children in the educationally-oriented preschools demonstrated more free choice when engaged in activities such art, music, dramatic play, provision for sand/water activities and block construction than children at care settings. They were also more likely to engage in making 'original' art work with a variety of materials available. In contrast, children at care centres were engaged in art while in an adult-directed group, often reproducing (copy) the same activity (cut & paste, drawing, finger painting, collage, etc.) at the same time. The 'best' art works were those which closely represented the original with individual expression discouraged.

Teachers identified and engaged in creative activity differently at the two types of preschool settings. Their ideas and understanding regarding 'creativity' varied considerably. Care teachers were more likely to put an emphasis on product-oriented activities with little concern for the 'process' involved in creative activity (Benham et al., 1988) while teachers at educational centres tended to demonstrate a more open-ended understanding towards creativity. In practical terms, teachers in both preschool settings appeared to be struggling with questions centred around *recognising* 'creative enterprise' (free choice, individual expression) and *providing* an environment conducive to stimulating creativity. While not empirically tested, several teachers often remarked that the problem was due to the lack of resources (funds, materials, additional staff), while few mentioned it may be due to lack of knowledge and training.

Furnishings/display

According to Ball (1994) good practice is characterised by environments which provide resources that promote 'purposeful play', space for movement and areas for rest and quiet. For this study the significant differences between preschools in the Furnishing/Display category reflected the lack of provisions for restful, 'planned, cosy, cushioned areas' (Harms & Clifford, 1980) and learning centres, particularly in the care oriented centres. While toileting/washing provisions (in the Personal Care category) did not vary considerably between preschool settings, the attitudes towards adult supervision for these provisions showed marked differences. The higher scores for the educational group reflected more teacher assistance/interaction/conversation of a pleasant and/or learning nature between the adult and child when compared with teachers at the care oriented preschools.

Language/reasoning

Central to the issue of quality in any preschool setting is the provision for language experience and development. ECERS describes language/reasoning experience by the following characteristics: quantity and quality of type of language materials available, scheduled times for expressive language development, teacher assistance in asking questions to stimulate children's reasoning, and adult-child conversations where staff expand on ideas presented by the children. Differences in preschool groups showed significantly higher scores for the educational centres, indicating that teachers were more likely to 'extend' language activities than teachers at care centers. In care environments teachers tended to give short yes/no answers more frequently and children were not encouraged to converse freely. Most activities were teacher-directed and when opportunities for free play were provided it was usually not supervised with the intent of enhancing language abilities. In care centres, free play was generally regarded as periods away from 'real' learning.

Social development

Similarly, the preschool orientations significantly differed on several items in the Social Development category such as, space to be alone, free play time, group

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time, cultural awareness, tone (general impression of the quality of interaction), and provisions for exceptional children. Characteristically, as with most social categories, this subscale has many items which unavoidably overlap with other subscale categories. Here, the findings indicated that the larger differences between care and educational groups were accounted for by two items - free play (free choice) and cultural awareness. As with language, free play was not considered an opportune time for language or social development in the care oriented preschools. Children were more or less left on their own to play while staff involvement focused mainly on misbehaviour, disputes or problems. Staff saw this time as an opportunity for chatting amongst themselves. To a lesser extent this applied to educationally oriented preschools, with staff occasionally playing with the children with the intention of extending on the activity. In such cases, it was difficult for the researcher to know if this factor was due to the obvious presence of the rater or something normally done by the staff, i.e. observer bias.

The other item, cultural awareness, was measured by the evidence of ethnic and racial variety in toys and pictorial materials, e.g. bulletin boards, dolls, and books depicting cultural and racial differences. At the care centres there were few visible multi-racial and non-sexist materials (pictures, posters) in the surroundings. Of those that were displayed, most were foreign advertisements for commercial products. In the educational centres attempts to provide cultural awareness as part of the curriculum were more frequent and better planned than at the care centres. Where some teachers made efforts to have children draw and discuss pictures of different people in their native countries, other teachers clearly felt it was either unnecessary, religiously offensive and/or incongruent with cultural practices. Other studies have mirrored some of these same subtle differences in cultural awareness practices in preschool provision. Benham, et al. (1988) claims there are virtually 'countries within countries' in terms of cultural diversity in America which demonstrate that neighborhoods, often defined by socio-economic factors, are not providing environments for preschoolers that promote cultural awareness and differences. Benham and her colleagues state that the problem lies with the lack of training afforded to the teachers, "even for programs in homogeneous communities, training is needed for the planned use of multi-cultural, non-stereotyped materials . . . Before caregivers can promote cultural awareness in children, . . they must be culturally aware themselves" (1988, p. 14).

Adult needs

Another feature, often used to describe quality in preschool provision is the type and extent of provision offered to staff e.g. a staff lounge area with adult-size furnishings, personalised areas for working, resting, or meeting with another adult. The ECERS scale addresses these features in the Adult Needs category. When the two preschool groups were compared, teachers at the educational centres had significantly more privacy and personal space allotted to them when compared with teachers at the care oriented centres. At the care centres when adult provisions were provided they often served a dual purpose e.g. as storage, working area and a rest place. According to Katz (1993) preschools environments should be inviting, supportive and cooperative places for staff to work in. Adults, like children, work better in environments that provide privacy, comfort and relaxation. Such conditions foster concentration and respect for others. Further research supports these findings, indicating that a key factor in determining the quality of a centre rests on those provisions (or lack of) provided for adults (Ball, 1994; Benham et al., 1988; Curtis, 1986; 1992; Fiene, 1992; McCartney et al., 1985; Schweinhart et al., 1993; Zigler & Styfco, 1993).

Fine/gross motor activities

Another area of criteria which has received considerable attention in the research literature is the provision for learning materials and apparatus. Caregivers, educators and researchers agree that it should be varied, challenging, purposeful and developmentally appropriate. The selection should consist of an organised and balanced (independently-oriented and jointly collaborated) assortment of fine/gross motor activities that encourage interaction and imagination. The ECERS fine/gross motor activities subscale includes items such as provisions for adequate spacing of activities, well-planned scheduling of activities, attentive/extending supervision, and a wide selection of 'developmentally appropriate' materials for perceptual, fine and gross motor activity, indoors and out.

Overall, the results for the comparison between the two preschool settings showed a significant difference ($p<.05$) for this subscale category. Interestingly, the amount, quality and scheduled use of outdoor apparatus (gross motor activity) did not vary between care and educationally oriented preschools. Swings, slides

and climbing apparatus were in relatively good working condition and all preschools had specific set times for playing outdoors. Clearly, the significant finding between preschools was due to the supervision and use of fine motor materials provided for children. Children at educationally oriented preschools were allowed more frequent access to fine motor materials. Educational materials were more likely to be given to the child by request in the educationally oriented preschools, whereas in the care oriented preschools they were provided when the teachers deemed appropriate. Differences between specific types of materials in the types of provision were less clear. ECERS limits itself to a general list of materials for perceptual and fine motor materials (beads, puzzles, lego small building toys, scissors and crayons). Therefore, it is difficult to accurately gauge how the two types of preschool settings differed on provision of materials specific to certain subject areas, e.g. sensori-motor materials; pre-writing tasks; math (quantity, size, shape, spatial-perceptual) tasks; science; and cultural areas. In part, this concern has recently been addressed in an adaptation of the ECERS scale for school age children, The School Age Environment Rating Scale, SACERS (Harms, Jacobs & White, under review).

Aside from the measured criteria for quality assessed in the ECERS results, a further important index of a programme's potential value has been considered in this study: child/staff ratio. For some time, rigorous research has provided the evidence which links the effects of child/staff ratios with teacher behaviour and competence; children's developmental outcomes; funding and the quality of the centre (Hadeed & Sylva, 1995, in press; Hadley, Wilcox & Rice, 1994; Howes & Olenik, 1986; Ruopp, Travers, Glantz & Coelen, 1979; Vandell, Henderson & Wilson, 1988; Weikart, 1993). Table 3 provides the range of staff/child ratios for this study according to the preschools that participated in the ECERS assessment. Also, the range of scores per group, based on each preschool's total index score, is proportionally expressed out of the total possible score of 259 for ECERS.

Table 3:

Child/staff ratios:
According to preschool orientation
(care and educational)
ECERS (N=12)

	Care	Educational
Child/staff ratios (range)	21:1 - 27:1	12:1 - 18:1
% of total scores (out of 259)	29 - 54%	60.6 - 80%

All preschools designated as educationally-oriented provided more teachers for the number of children served when compared with the staffing at care oriented centers. The relationship suggests a positive association between favorable ratios and ECERS scores. This would support previous research which indicates that good staffing ratios are critical for providing optimum quality care for young children (Field, 1991; Howes & Olenik, 1986; Ball, 1994; Ruopp et al., 1979; Schweinhart et al., 1993; Vandell et al., 1988; Zigler & Hall, 1988). Cautiously, research reminds us that numbers (ratios) by themselves are often misleading. In some cases, ratios include staff who are not qualified teachers but aides, assistants, or staff that service the maintenance of preschool centres. Other situations show that typically 'unqualified staff' may in fact have specialised training indigenous to the cultural learning environment, yet lack 'certified' training. Taken at face-value, it is difficult to actually know how many qualified staff members are accounted for in 'good' ratio figures. Ball (1994) specifies a rule of thumb measure for calculating the appropriate ratio in preschool provision as 'one trained adult to the number of children equivalent to double their average age' (p.29). The notable High/Scope Perry Preschool Project had four adults for 20-25 children (Weikart, 1994). While some programmes vary considerably on ratio it is important to insist on the number

which provides close and effective contact/interaction and sensitive/creative enterprise in structuring a programme for early learners.

Combined, the results show that ECERS discriminated between the two types of preschool settings, care oriented and educationally oriented. The findings showed a consistent pattern of significantly higher scores on all seven subscale categories for the educational settings when compared with the care oriented settings. Children and staff at the educational centres were more likely to experience better facilities e.g., developmentally-appropriate materials/ apparatus, furnishings, better staffing ratios, and adult provisions/working conditions. Higher scores were mainly owed to the 'interactive' and supportive attendance of staff with children e.g., assisting in personal care routines, extending language activities, and allowing more free choice and independence.

Further findings: Correlation of ECERS total scores with results from the Teacher Questionnaire (management practices and teacher attitudes)

Further findings are reported from an investigation which correlated the ECERS results with the scores on the Teacher's Questionnaire/Interview (Hadeed, 1993) that were used in classifying preschool orientations. The attempt was to investigate the relationship between the structure management practices and teacher's attitudes with the ECERS outcome scores. Were the institutional-type management practices at care oriented centres associated with overall environmental outcomes? Were the child oriented practices at educationally oriented centres associated with the environmental outcomes (ECERS)? Were the staff attitudes associated with ECERS outcomes? Significant correlation coefficients were reported: $r = -.76$ ($p<.01$) for the management practices (18 items) and $r = -.56$ ($p<.05$) for the staff attitudes scale (23 items) with negative cosigns indicating more favourable preschool settings as scores decrease (more child-oriented practices). These findings suggest that management practices and attitudes play a key role in assessing quality characteristics in preschool provision in Bahrain.

Discussion

The ECERS scale has provided a descriptive and informative assessment of preschool conditions in two types of preschool environments: care oriented and educationally oriented. It has acted as a yardstick to gauge overall preschool surroundings, demonstrating that educational centres provide 'more favourable' early learning environments when compared with care centres in Bahrain. When compared with the care oriented centres, the educational centres not only provided 'more' in terms of quantity measures (more variety, scope, and developmental appropriate materials and apparatus, indoor and out to meet the needs of children and staff) but they offered 'more' in terms of features which measure the process characteristics of quality (well-planned scheduling, supervision, interaction with staff/child/parents). These are the conditions which support optimum use of the provisions available. Similar to previous research, these findings have implications of providing practical value to caregivers and teachers, alerting them to how their programmes are meeting participant's needs (Kontos & Stevens, 1985).

While valuable in some respects, there are clearly concerns regarding ECERS role as a comprehensive measurement of quality (Benham et al., 1988; Farquhar, 1989; Kontos & Fiene, 1985; Scarr et al, 1994). Some have argued that rating scales, in general, do not include the dynamics of inter-personal relationships between the preschool working-triad (child-adult-parent) such as, respect, support, experience and personal values, all of which constitute vital characteristics of quality (Katz, 1993). Other aspects need to focus on providing greater security for children in terms of establishing familiar, responsive and attached adults in the environment (Rutter, 1985) and building viable programmes for parent involvement (Ball, 1994; Hughes, Wikeley & Nash, 1994, Pugh, 1988; Wolfendale, 1983). Most of these considerations are not directly addressed in the ECERS assessment.

Further concerns suggest that ECERS (along with other similar rating scales) may be 'culture specific' and unable to detect and assess features of quality in provision in other cultures (Farquhar, 1989). As a result, agreement as to what

actually constitutes high quality programmes in other countries is often not clear. Some recommendations suggest that quality should be assessed in terms of child outcomes (cognitive, social, emotional, motor, language) or by the affiliation of the center e.g., a profit or non-profit organization (Kontos & Fiene, 1985; Fiene & Melnick, 1989). Others claim we need to focus on characteristics which identify the processes of quality interaction such as, the training/qualification for creative/adaptive teaching practice and the improvement of conditions which promote professional standards (Beardsley, 1990; Bredekamp & Willer, 1992; Cassidy et al., 1995; Pascal & Bertram, 1993). Beardsley claims that the 'dangers' which jeopardize quality practice lie, in part, with programmes which have designed facilities to 'look' high quality (fresh paint, attractive toys) to the outside observer, but which are in fact low quality centres which have compensated teacher's salaries and qualifications for an attractive 'cover' (Beardsley, 1990). Often teachers lack creative enterprise and experience and may actually (unknowingly) work as a 'barrier' instead of as an asset in the early learning environment. Empirical research indicates rigid programming and insensitive teaching have considerable effects on children's behaviour and learning (Clarke-Stewart, 1988; Reifel, 1993; Schweinhart et al., 1993).

Possibly more important are the recent concerns that address the construct validity of the instruments being used to assess quality in child care provision, as Scarr and others suggest. It may not be that we need to provide 'more' in terms of features of quality, yet rather a more accurate analyses of the list of criteria at hand. Abundant research has demonstrated what is needed for assessing quality in early learning environments. Combined, the basic components for developing instruments for assessment contain the following criteria:

(1) a measurement which taps (accurately describes) 'process' (interactions)
(2) a measurement which provides an index of non-redundant, essential criteria for quality (features of the environment)
(3) a diverse, sensitive measurement of varied family backgrounds served (cultural, economic, social, political and geographic)
(4) an accurate measurement of staff background variability, attitudes beliefs and personality characteristics (cultural, social, economic, personal, educational)

While it is doubtful that there is a single instrument capable of measuring all characteristics of quality within all cultural contexts, it does seem that ECERS provides a valuable and general descriptive assessment of child care settings. Alone, though, it does not provide a 'gold standard' for assessing quality. Most would agree that depending upon checklists, rating scales with global index scores, interviews and observations are not enough, in themselves. Rather than a single measurement what is needed is a composite of co-ordinated assessments which are appropriately adapted to the culture and families served by the child care provision on offer (Weikart, 1994).

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Figure 1.

Early Childhood Environment Rating Scale

Mean scores for subscales by preschool orientation: care and educational